



# TECHNICAL DATA

Revised Date: 01/2008  
Replaces Date: 01/2005

## STYROTHANE 5321 FR AROMATIC URETHANE

### Product Description

A fast curing, 100% solids, aromatic urethane coating. Specifically designed as a hard coat to provide high impact damage resistance for expanded polystyrene (EPS), Styrofoam and PUF.

### Features

- Passes ASTM D-635 test criteria.
- Fast cure and cycle times for increased production rates
- High gloss visual appeal for product enhancement
- Durability extends substrate life
- Impact Resistant Protection
- Protection against chemical attacks (gasoline, oil, solvents, etc.)
- Excellent waterproofing characteristics
- Resistant to freeze/thaw expansion contractions and thermal shock cycles.

### Recommended Uses

- High impact damage protection for Expanded Polystyrenes (EPS) and Styrofoam.
- Protection and enhanced aesthetic appeal for urethane foam and phenolic foam boardstock.
- Protection and enhanced aesthetic appeal for wood surfaces.

### Typical Properties

<b>Solids by Volume</b> (ASTM D-1353)	100%
<b>Volatile Organic Compounds</b>	0 lbs/gal (0 g/L)
<b>Theoretical Coverage</b>	1604 ft <sup>2</sup> /gal @ 1 mil (3.8 m <sup>2</sup> /gal @ 1.0mm)
<b>Recommend DFT</b>	30-100 mils
<b>Number of coats</b> Do not exceed 30 mils dft per coat	One or more
<b>Mix Ratio</b> (by volume)	1 "A" : 1 "B"
<b>Flash Point</b> – PMCC	>300°F (149°C)
<b>Viscosity</b> LV4/60 RPM	A Component 900 B Component 700
<b>Shelf Life</b> @ 65-80°F (18-27°C)	12 Months
<b>Color</b>	Neutral

### Specification Data

<b>Tensile Strength</b> ASTM D 412	3800 psi
<b>Elongation</b> ASTM D413	10 %
<b>Hardness</b> ASTM D2240	69 Shore D
<b>Flexural Modulus</b> ASTM D790	82,000 psi ± 5000
<b>Density</b>	67lb/ft <sup>2</sup>

### Ordering Information

<b>Packaging</b>	10 gal & 110 gal kits
<b>Shipping Weight</b>	11 lbs/gal

# APPLICATION INFORMATION STYROTHANE 5321 FR

## Surface Preparation

Remove all oil, grease or other contaminants from the surface to be coated

## Mixing

Power mix "B" component a uniform consistency, "A" component does not require mixing.

**DO NOT BATCH MIX.**

## Thinning

**DO NOT THIN!**

## Pot Life

Material Temperature	Time
70°F (21°C)	< 15 seconds

## Application Conditions

	Normal	Minimum	Maximum
<b>Material*</b>	135-150°F (57-65°C)	135°F (57°C)	170°F (77°C)
<b>Surface</b>	75-90°F (24-32°C)	40°F (4°C)	120°F (49°C)
<b>Ambient</b>	75-90°F (24-32°C)	40°F (4°C)	120°F (49°C)
<b>Humidity</b>	30-50%	0%	85%

\*Materials must be preheated to 75-90°F (24-32°C) prior to use. Surface temperature must be 5°F(3°C) above the dew point.

## Application Equipment

### **Heated Plural Component Airless (only)**

Applicator training is required and spray equipment must be approved by ITW Futura Coatings Technical Service.

- 1:1 ratio capable of producing a minimum delivery rate of 1¼ gallons per minute at a tip pressure of 2500-3000 psi.
- Proportioner heaters and heated hose capable of maintaining material temperatures of 135-150°F (57-65°C) at the spray tip.
- Drum heaters capable of maintaining material temperatures of 75-90°F (24-32°C) during application
- 2:1 ratio transfer pumps minimum.
- Contact ITW Futura Coatings for specific information.

## Cure Time

These times are based on a 30-50% RH. Excessive film thickness, cooler temperatures or inadequate ventilation will require longer cure times and could result in premature failure.

	<u>Surface Temperature</u>		
	50-69°F (10-21°C)	70-89°F (21-32°C)	90-110°F (32-43°C)
<b>Surface dry</b>	5 minutes	2 minutes	1 minute
<b>Hard Film</b>	20 minutes	10 minutes	6 minutes
<b>Recoat (min)</b>	< 8 minutes	4 minutes	2 minutes
<b>Recoat (max)</b>	15 hours	8 hours	1 hour
<b>Full cure</b>	3 days	48 hours	30 hours

- If the maximum recoat time has been exceeded by more than 24 hours consult ITW Futura Coatings for recommended recoat procedures.

## Clean Up

Consult ITW Futura Coatings "Plural Component Equipment Guide" for specific information

## Safety Information

- Read the Material Safety Data Sheet (MSDS) and container labels for detailed health and safety information.
- Do not apply material in enclosed areas without adequate air exchange and ventilation.
- All application personnel must use fresh air respirators or fresh air hoods.
- Wear protective clothing, gloves and eye protection.
- Breathing fumes or contact with the skin may cause severe allergic reactions.
- **This product is intended for industrial use by properly trained professional applicators only.**

## Storage Conditions

- Urethane coatings need to be protected from moisture contamination. Store drums and pails in a dry location at 60-90°F (16-32°C).
- Drums must be kept sealed at all times with a positive feed dry air, nitrogen blanket or desiccant cartridge system.
- Materials must be kept above 50°F (10°C).

ITW FUTURA COATINGS, 1685 GALT INDUSTRIAL BLVD., ST LOUIS, MO, (314) 733-1110

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